



METROPOLITAN  
TRANSPORTATION  
COMMISSION

Joseph P. Bort MetroCenter  
101 Eighth Street  
Oakland, CA 94607-4700  
TEL 510.817.5700  
TDD/TTY 510.817.5769  
FAX 510.817.5848  
E-MAIL [info@mtc.ca.gov](mailto:info@mtc.ca.gov)  
WEB [www.mtc.ca.gov](http://www.mtc.ca.gov)

## *Memorandum*

TO: Planning Committee

DATE: March 7, 2008

FR: Deputy Executive Director, Operations

W.I.: 1512

RE: Preliminary Transportation 2035 Needs and Shortfall Assessment for Streets and Roads and Transit

This memorandum summarizes the preliminary Transportation 2035 needs and shortfalls for local streets and roads, and transit operating and capital.

The preliminary findings show that the shortfalls, as projected over the Plan, to maintain the existing local streets and roads and transit systems total \$44 billion (escalated dollars), which exceeds the total discretionary funding under discussion in Transportation 2035. By comparison, the last Plan identified roughly \$22 billion in shortfalls for the same assets, after making an adjustment for escalation. The 100% increase in shortfalls to maintain the existing system is primarily attributable to an increase in the price of paving materials and deferred maintenance expense for streets and roads, and a major change in the methodology used to estimate needs for transit capital and non-pavement assets.

There will be an opportunity to have policy discussions about levels of regional commitment to operation and maintenance of the existing network as part of the Transportation 2035 trade-off discussions in late Spring. The data as well as some preliminary policy considerations are provided for you today for your feedback.

### **1) Local Bridge Need**

Staff does not have an estimate of the 25-year local bridge need at this time. MTC contracted with the consulting firm, Cambridge Systematics, to assist with the development of the local bridge shortfall estimates. Bridge maintenance needs data will be based on information derived from Caltrans' Pontis Bridge Management System software. Transit bridge maintenance needs are included in the transit capital replacement needs.

### **2) Local Streets & Roads Needs and Shortfall**

Preliminary calculations of the 25-year region-wide, local street and road (LS&R) capital maintenance needs, revenues and shortfalls by county are summarized below. In the chart below, MTS stands for the Metropolitan Transportation System, which is defined as the subset of the Bay Area's local roads eligible for federal aid.

**DRAFT T2035 LS&R 25-YEAR NEEDS, REVENUES, AND SHORTFALLS (In Millions, Escalated)**

Region	Pavement Need	NonPavement Need	Total Need	Total Revenue	Total Shortfall	MTS Shortfall	MTS Pavement Shortfall	MTS Non-Pavement Shortfall
Alameda	\$ 2,699	\$ 3,223	\$ 5,922	\$ 2,606	\$ 3,316	\$ 1,735	\$ 514	\$ 1,220
Contra Costa	\$ 2,134	\$ 2,143	\$ 4,277	\$ 2,429	\$ 1,848	\$ 1,043	\$ 355	\$ 689
Marin	\$ 895	\$ 546	\$ 1,441	\$ 577	\$ 864	\$ 396	\$ 222	\$ 174
Napa	\$ 875	\$ 379	\$ 1,255	\$ 403	\$ 851	\$ 361	\$ 289	\$ 73
San Francisco	\$ 1,675	\$ 1,793	\$ 3,467	\$ 2,123	\$ 1,344	\$ 849	\$ 503	\$ 346
San Mateo	\$ 1,343	\$ 1,681	\$ 3,024	\$ 1,503	\$ 1,521	\$ 664	\$ 140	\$ 523
Santa Clara	\$ 3,975	\$ 4,006	\$ 7,981	\$ 4,432	\$ 3,549	\$ 1,374	\$ 858	\$ 516
Solano	\$ 1,415	\$ 1,083	\$ 2,498	\$ 716	\$ 1,782	\$ 776	\$ 386	\$ 390
Sonoma	\$ 2,313	\$ 1,169	\$ 3,482	\$ 1,430	\$ 2,052	\$ 1,021	\$ 673	\$ 348
<b>Total</b>	<b>\$ 17,323</b>	<b>\$ 16,024</b>	<b>\$ 33,347</b>	<b>\$ 16,219</b>	<b>\$ 17,128</b>	<b>\$ 8,218</b>	<b>\$ 3,939</b>	<b>\$ 4,279</b>

“Capital Maintenance” or rehabilitation consists of activities that extend the useful life of the roadway asset by five or more years. This category can be further broken down into capital maintenance for pavements and capital maintenance for non-pavement assets (sidewalks, storm drains, traffic signals, curb and gutter, etc.). For the purposes of Transportation 2035, the calculation of the LS&R shortfall only includes the unmet need for capital maintenance and does not include shortfalls for on-going “operations.” LS&R operations include routine maintenance such as pothole filling, street sweeping and striping, and overhead expense. It is assumed in the Transportation 2035 calculations that LS&R revenues are applied first to the need for on-going operations and once those needs are met, funding is directed towards capital maintenance.

### 3) Transit Operating Needs and Shortfall

Preliminary calculations of the 25-year projected transit operating expenses and deficits are summarized below. Detail is shown for the large operators, with aggregate figures provided for the smaller transit operators.

	Operations Expense	Operations Revenue	Deficit	
			Amount	Percent of Operations Expense
LARGE OPERATORS				
1. AC Transit	\$11,744	\$11,739	\$4	0.04%
2. BART	\$22,060	\$22,060	\$0	0.00%
3. Caltrain	\$3,382	\$3,382	\$0	0.00%
4. Golden Gate Transit (inc. MCTD)	\$2,938	\$2,753	\$185	6.31%
5. SamTrans	\$5,985	\$5,359	\$626	10.45%
6. SF MTA	\$28,377	\$26,577	\$1,800	6.34%
7. VTA	\$15,093	\$15,093	\$0	0.00%
SUBTOTAL LARGE OPERATORS	\$89,579	\$86,963	\$2,616	2.92%
SMALL OPERATORS				
SUBTOTAL SMALL OPERATORS	\$6,731	\$6,387	\$344	5.11%
TOTAL LARGE & SMALL OPERATORS	96,310	93,351	2,960	3.07%

Overall, the cost to operate and maintain the current transit system is \$96 billion, with a funding shortfall of roughly \$3 billion (or about 3% of the total) over the plan period. Of the large operators, AC Transit, Golden Gate (including MCTD), SamTrans, and SF MTA are projected to have operating deficits; the remaining operators are projected to have sufficient revenues to cover expenses.

#### **4) Transit Capital Needs and Shortfall**

Preliminary calculations of the 25-year region-wide, transit capital needs, revenues and shortfalls are summarized below. Overall, the needs for the region's transit capital maintenance are \$43 billion, with a shortfall in funding of approximately \$24 billion over the plan period.

*(In Millions, Escalated)*

Operator	Total Need	Score 16 Need	Rev. Vehicle Need
Large Operators			
AC Transit	\$ 1,899	\$ 1,520	\$ 1,354
BART (1)	\$ 18,267	\$ 14,271	\$ 2,697
Caltrain (2)	\$ 2,373	\$ 1,281	\$ 786
GGBHTD	\$ 1,100	\$ 899	\$ 545
SamTrans	\$ 1,160	\$ 836	\$ 669
SFMTA (3)	\$ 11,426	\$ 7,976	\$ 3,002
VTA	\$ 5,172	\$ 3,340	\$ 1,231
Subtotal Large Operators	\$ 41,398	\$ 30,123	\$ 10,284
Subtotal Small Operators	\$ 1,893	\$ 1,332	\$ 1,268
<b>Total Need (4)</b>	<b>\$ 43,291</b>	<b>\$ 31,455</b>	<b>\$ 11,551</b>
<b>Transit Capital Revenues</b>	<b>\$ 19,659</b>	<b>\$ 19,659</b>	<b>\$ 19,659</b>
<b>Surplus/(Shortfall)</b>	<b>\$ (23,632)</b>	<b>\$ (11,796)</b>	<b>\$ 8,107</b>

(1) BART totals subject to revision based on reconciliation of RTP projections with BART's CIP.

(2) Caltrain totals subject to revision based on revised transit capital inventory.

(3) SFMTA total based on vehicle inventory, and CIP projects submitted in lieu of inventory for other asset types.

(4) TransLink® and Connectivity costs not included; will be allocated to individual operators.

Total replacement need for transit is defined as the replacement of capital assets such as vehicles, facilities, stations, fixed guideway assets, and systems, in accordance with the useful life for that asset. "Score 16 needs" include only the highest-scoring projects such as vehicles and fixed guideway, which was the focus of our Transportation 2030 investment strategy. "Rev. vehicles" include only replacement buses and rail rolling stock. Capital rehabilitation is included in capital needs, but preventive maintenance costs are assumed to be part of the operating budgets. This is an area that requires follow-up with the transit operators to ensure consistency with their own capital and operating plans.

On the need side, a new approach was taken this year to calculate the transit capital need. The new methodology is based on assessing the 25-year replacement needs for the region's transit assets, rather than on projects identified by the transit operators. This was intended to make the data more consistent between operators, and more transparent since all operators would be using the same asset classifications. Most of the region's operators were able to provide inventories of their transit capital assets. However, San Francisco MTA is still in the process of conducting an inventory of their assets, and therefore provided project-based information instead.

### **Regional Investment Discussion**

During development of Transportation 2030, the Bay Area Partnership underwent a lengthy process to determine levels of regional investment in the capital maintenance of the LS&R and Transit systems. For LS&R, it was determined that the Metropolitan Transportation System (MTS), which represented the most significant local roads, would provide the basis for regional maintenance investment. The decision on the transit side was to fully fund Score 16 capital replacement projects as a regional investment.

**Streets and Roads:** Currently, the rehabilitation shortfall that exists on the MTS is approximately 50% of the total shortfall, or more than \$8 billion, and may be too large to represent the regional investment commitment. Other ideas for prioritizing segments of the LS&R network in order to determine an appropriate regional investment level include 1) Only funding the capital maintenance shortfall in the pavement category; 2) Funding only a portion of the MTS; or 3) Investing at a level that will allow the region to achieve a certain Pavement Condition Index (PCI) on the MTS. For example, the Local Streets and Road Strategic Plan established a PCI goal of 75 on the MTS.

**Transit:** Similar to LS&R, the Commission may want to reconsider whether Score 16 projects, with an estimated shortfall of roughly \$12 billion, should continue to define the level of investment in the region in this Plan. It is more challenging to define a level of investment to achieve a state of good repair for transit, similar to PCI for streets and roads, because consistent condition information is not available across transit properties. However, there is the possibility of establishing a link between the level of investment in transit and the percent of the assets that are replaced in a timely manner.

These and other options will need to be considered as we move into trade-off discussions for projects and programs that are included in the RTP financially constrained element. We welcome Commission feedback now and as we move through the difficult trade-off debate between system preservation and expansion in the months ahead.

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Ann Flemer

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